March 28, 2008

RE: Final Environmental Assessment (EA) for Twite Family Partnership's Amendment Application for the Linda Vista Site

To All Interested Parties:

In response to the public notice and Draft EA that DEQ issued in February 2008 on this proposal, DEQ received several comments that are addressed in the enclosed copy of the Final EA, which is also available at http://www.deq.mt.gov/ea/opencut.asp. The main text of the EA has also been revised in response to some of the comments.

If any person wishes to challenge DEQ on the Final EA for this amendment application, he or she may do so as follows. The Montana Environmental Policy Act, which provides for the legal authority and basis for the preparation of EA's and environmental impact statements by state agencies, states at 75-1-201(6), MCA: "A challenge to an agency action under this part may only be brought against a final agency action and may only be brought in district court or in federal court, whichever is appropriate. Any action or proceeding challenging a final agency action alleging failure to comply with or inadequate compliance with a requirement under this part must be brought within 60 days of the action that is the subject of the challenge."

DEQ has determined that Twite Family Partnership's amendment application for the Linda Vista Site is in compliance with the applicable provisions of the Opencut Mining Act and its pursuant rules, subject to two stipulations (see Agency-Modified Alternative at the bottom of page 6 of the Final EA). Therefore, DEQ is concurrently approving this amendment application.

Regarding DEQ approval of the amendment application, the Opencut Mining Act at 82-4427, MCA provides: "(1) A person whose interests are or may be adversely affected by a final decision of the department to approve or disapprove a permit application and accompanying material or a permit amendment application and accompanying material under this part is entitled to a hearing before the board [of Environmental Review] if a written request stating the reasons for the appeal is submitted to the board within 30 days of the department's decision. (2) The contested case provisions of the Montana Administrative Procedure Act, Title 2, chapter 4, part 6, apply to a hearing held under this section." Requests for a hearing under this provision must be submitted to: Secretary; Board of Environmental Review; P.O. Box 200901; Helena, MT 59620-0901.

Please contact Rod Samdahl in DEQ's Kalispell office (755-8985, Ext. 101 or rsamdahl@mt.gov) or me if you have any questions.

Sincerely,

Neil Harrington, Chief Industrial and Energy Minerals Bureau

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NH/nh Enclosure

FINAL ENVIRONMENTAL ASSESSMENT

PROPONENT: Twite Family Partnership SITE NAME: Linda Vista Site

LOCATION: Section 13, T12N, R20W COUNTY: Missoula

March 28, 2008

TYPE AND PURPOSE OF ACTION:

The applicant proposes to increase the existing permit area from 18 to 73.6 acres. Of these, 59.8 acres have already been disturbed by mining, and 13.8 acres of land previously undisturbed by mining will be added to the permit (see attached Map 1). This increase in acreage will not change the approved reclamation Plan, which is to develop the area for residential homesites and related greenspace. This mining permit has been in effect since September 1992 and has progressed to the south as planned with residential homes taking over the reclaimed mined areas as it goes. The proposed expansion area is currently unzoned, but the Missoula Office of Planning and Grants has signed a DEO form stating that the applicant has participated in a pre-application meeting with them and has disclosed their intent to zone and subdivide the site in the near future. No specific date was given.

Other changes in the permit would include reducing the estimated depth of mining from 50 to 25 feet, increasing the volume to be mined from 250,000 to 1,246,000 cubic yards of gravel, extending the final date of reclamation from 2012 to 2020, submitting a new map and increasing the performance bond from \$23,355 to \$130,981. No other changes would be made to the original application. The Environmental Analysis prepared for the original permit application contains much information that is still applicable to this amendment, and impacts of mining would not change the earlier discussions of mining impacts regarding issues such as dust, traffic, noise, viewshed, wildlife, etc. This EA addresses the impacts of the proposal to continue expansion toward the south.

This environmental assessment (EA) is required under the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose and analyze the impacts of an action, in this case operating a gravel pit on which the state must make a decision, so that an informed decision can be made. MEPA sets no environmental standards, even though it requires analysis of both the natural and human environment. This document may disclose many impacts that have no legislatively required mitigation measures or over which there is no regulatory authority. The state legislature has provided no authority in MEPA to allow DEQ or any other state agency to require conditions or impose mitigations on a proposed permitting action that are not included in the permitting authority and operating standards in the governing state law, such as the Opencut Mining Act, the Clean Air Act of Montana, or any other applicable state environmental regulatory law. Beyond that, a company may agree to voluntarily modify its proposed activities or accept permit conditions.

The state law that regulates gravel-mining operations in Montana is the **Opencut Mining Act**. This law and its approved rules place operational guidance and limitations on a project during its

life, and provide for the reclamation of land subjected to opencut materials mining. This law requires that a reclamation bond, cash deposit or other financial instrument be submitted to the state to cover the complete costs of reclaiming the site to its approved, post-mining land use, if the permittee fails to reclaim the site as required by the law, the rules, and the permit.

The permit decision cannot be based upon the popularity of the project, but upon whether or not the proponent has met the requirements of the Opencut Mining Act, pursuant rules, and other laws pertaining to its proposed actions.

PUBLIC COMMENTS AND RESPONSES:

Dust
Hours of operation
Storm water
Traffic
Violations

- **COMMENT:** Dust blows over our homes during the windy days of summer from this pit. Twite has never planted temporary grasses on his soil piles to prevent dust. Please deny this permit.
- **RESPONSE:** There would be an increase in emissions of particulate matter as a result of this increase in mine area. However, the amount of allowable dust is regulated. Air quality standards are based upon the Clean Air Act of Montana and pursuant rules. Air quality in Missoula County is regulated by the Missoula County Environmental Health Division through a DEQ-approved program. DEQ has an Environmental Protection Agency (EPA)-approved air quality program. Air quality permits and permit conditions are established to promote compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health and the environment. Twite has an air quality permit from the Missoula County Environmental Health Division.

Fugitive dust is considered to be a nuisance but is not considered to be harmful to health. Dust suppression on a crusher is accomplished by spraying water into the crushing chamber and onto the conveyor belt that transports the crushed material onto stockpiles. Fugitive dust from the site in general would also be controlled by spraying water on the pit floor and on the roads. Occasionally an operator will use a surfactant such as magnesium chloride to provide extra control on heavily used areas such as a main access road.

DEQ agrees with the comment about lack of vegetation on soil piles. DEQ has identified as a necessary mitigation that the operator seed all soil piles that will remain undisturbed for at least one year (see page 6 of this document). DEQ will attach this mitigation as a required condition of approving the proposed amendment application.

DEQ has no basis with respect to air quality to deny the amendment application. Back to top

• **COMMENT:** Hours of operation should be specified so that there are no activities at night or on weekends.

RESPONSE: The hours of operation for typical sites in this setting are from 7:00 AM to 7:00 PM, Monday through Friday. DEQ agrees that there should be specific hours set for this site, and has identified as a needed mitigation that the above hours of operation be established for this site (see page 6). DEQ will

attach this mitigation as a required condition of approving the proposed amendment application. Back to top

• **COMMENT:** Storm Water Discharge is a potential problem in the intermittent drainage that runs through this expansion and toward the county road to the south. Will the applicant adhere to Best Management Practices (BMP's) for erosion control, and what assurance do we have that such controls will be put in place?

RESPONSE: Twite has had sediment discharges in the past due mainly to runoff from his road system, which does follow the drainage bottom. He has been actively installing sediment traps along the internal roads to prevent further discharge during snowmelt and rainfall events. The applicant needs to contact the DEQ Water Protection Bureau to determine exactly what, if any, discharge permits may be necessary. Back to top

• **COMMENT:** There is already a serious traffic problem on the Miller Creek Road. Will this additional mine area contribute to this problem?

RESPONSE: The proposed amendment to the open cut mining permit will not increase the traffic level to the streets. Past operations resulted in an average of seven trucks transporting gravel per day, and this rate will not change. Although the amount of total material to be removed is increased, the rate of truck traffic would not increase, because the permit amendment would allow the removal of the gravel to continue for a proportionally equivalent longer period of time. See more detail below under Section 11, **HUMAN HEALTH AND SAFETY.** Back to top

• **COMMENT:** The operator is asking for an amendment to expand his mine area from 18 to 76 acres, but over 40 acres of that area has already been disturbed. This is a violation of the Opencut Act. What has been done?

RESPONSE: Twite has indeed stripped soils and mined in areas that are outside of his permitted area. Upon discovery of this fact during a routine inspection by DEQ, the operator was contacted about the violation and instructed to take immediate action. He admitted there was a problem but did not know that he was limited to a specific plot of land for his gravel permit. It was his misunderstanding that he could "float" his permit area out in front of his expanding subdivision that led to this unauthorized expansion.

It was noted during the inspection that, other than the unpermitted expansion, the permit was being operated in a proper fashion. It is DEQ policy to notify operators with such violations of the problem and to give an appropriate timeframe within which to remedy the situation. Since there was no environmental harm done in this case, and Twite applied immediately for an amendment to bring his permit up to compliance, no enforcement action was taken against him.

IMPACTS ON THE PHYSICAL ENVIRONMENT		
RESOURCE AND EXAMPLE/GUIDANCE QUESTIONS	POTENTIAL IMPACTS AND MITIGATION MEASURES	
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?	The proposed amended area is located in hilly terrain above Miller Creek in Tertiary unconsolidated clay, silt, sand and gravel. The deposit consists of water-worked glacial debris overlying deeper valley bedrock. Some of the slopes are steep and droughty with southern exposure. The site is currently used as pasture.	
	Soil, which is 10 inches thick and rocky in the general area, would be salvaged and stockpiled away from the pit, road and facility area. Following mining, grading and ripping, the soils would be replaced on all green areas not intended for homesites, disked and seeded to grass. Individual	

2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	homesites would be landscaped by their owners and no soils would be replaced there by this operator for reclamation purposes. There are no fragile, compactable or unstable soils present, no unusual geologic features and no special reclamation considerations. The site is located substantially above the water table and would have no effect on groundwater. The nearest surface water is Miller Creek located 800 feet south across Miller Creek Road. Some intermittent surface flow during snowmelt and rainstorms occurs from the dry drainages contained in the area, but a series of sediment traps have been installed to prevent siltation from moving with the runoff and into the Miller Creek Road cut. These sediment traps would prevent discharge from impacting Miller Creek itself.
	There are 19 wells registered in the GWIC database in Section 13. The wells average 147 feet in depth, have an average static water level of 97 feet and yield an average of 31 gallons per minute. Most wells in the section are identified as for domestic use with five for irrigation. This information was obtained from the Montana Bureau of Mines and Geology, Ground-Water Information Center web site for Section 13 (2008). The Upper Linda Vista Homeowner's Association water well was drilled 380 feet deep and has a static water level of 255. It yields 30 gallons per minute. The estimated depth of mining would be 25 feet.
	A crusher is used at this site. Water for the crusher and for any dust control such as road watering could be obtained from the existing water well located on the property. No refuse would be disposed of at this site.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	Air quality would be further degraded as more area is stripped of native vegetation, and there could be an increase in particulate matter as a result of this amendment. Existing activity levels would continue and the Missoula County air quality permit for the crusher would remain in place.
	Dust and odors from sand and gravel operations contribute somewhat to a decline in overall air quality, especially during the hot, dry summer months when typical mining, loading, crushing and trucking equipment is most active. The general increase in residential and business use in the area has contributed to this decline as well. An increase in small car and light truck traffic on private driveways and unpaved roads has caused a substantial amount of particulates to enter the air in the general area. As there is a shift in land use in this area from ranching and agriculture

to mining and subdivisions, there may be a slight increase in the potential for dust during mine operations, but the
potential is expected to return to more normal (premining)
levels after the sites are reclaimed.
There are no known rare or sensitive plants in the site area.
Vegetation consists of pasture grasses and heavy
knapweed, and covers 80% of the ground. It would be removed and planted with grass species compatible with
the proposed reclaimed use. There are no rare plants or
cover types present.
Although the area is used primarily for pasture, it also
supports populations of deer, rodents, song birds, coyotes,
foxes, raptors, insects and various other animal species.
Population numbers for these species are not known. The
proposed mine is expected to displace some individual
species and it is likely that only the reclaimed greenspace
would provide limited future habitat for them. Site evaluations and DEQ staff analyses have not revealed
any unique, endangered or threatened plant or animal
species that would be directly affected to a significant
degree.
Although there are cultural values in the general area,
much of this site has been previously disturbed by modern
man by logging and ranching, thus destroying the integrity
of resources that may have existed. The operator is
committed to give appropriate protection to any values or
artifacts discovered in the affected area in the permit area. If significant resources are found, the operation would be
routed around the site of discovery for a reasonable time
until salvage could be conducted. The State Historic
Preservation Office would be promptly notified.
The site is visible from homes and roads in the local area.
Hours of operation for the site are not specified under this
permit. Typically, the gravel pit is operated between the
hours of 8:00 a.m. and 5:00 p.m., Monday through Friday,
and there is no plan to change this operating schedule at this time. However, due to the proximity of residential
homes in the area, it appears prudent to require specified
hours of operation as a mitigation (see page 6 below).
With the exception of one complaint about silt running off
into the county road drainage ditch, the DEQ has not
received any citizen complaints in the 15 years that the
permit has been in place. There are no unusual demands on land, water air or energy.
There are no unusual demands on land, water, air or energy anticipated as a result of this amendment.
anticipated as a result of this amendment.
There are no other studies, plans or projects planned for

IMPACTS ON THE HUMAN POPULATION

RESOURCE

POTENTIAL IMPACTS AND MITIGATION MEASURES

11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?

Heavy equipment and facilities including crushers, trucks and loaders will create hazards, but the operator must comply with all MSHA and OSHA regulations. The operator must employ proper precautions to avoid accidents.

Excessive and prolonged noise and light could increase stress for nearby residents and induce difficulty sleeping. However, with the typical hours of operation, which don't extend beyond 5:00 p.m., it is unlikely that there would be any significant impact beyond those already experienced by local residents. This proposed expansion is planned to follow development of residential homes and should not significantly affect human health.

Traffic: All local access to the Linda Vista site is via Miller Creek Road, which connects to Highway #93 South at a controlled intersection (stop light) by the Wal-Mart store. Miller Creek Road has already been determined by Missoula County and the City of Missoula to have reached traffic volumes where improvements are recommended. Through a recently completed joint City/County agreement, the design and construction of the improvements to Miller Creek Road are in process. Studies of the street and the recommended improvements have been completed by WGM Group engineers of Missoula. Funding for the project has been collected from the area developers over a period of several years into a Miller Creek Traffic Mitigation Fund to pay for the design and construction.

The limiting factor for traffic on Miller Creek Road is the intersection with Lower Miller Creek Road. This intersection is currently functioning at a Level of Service (LOS) of "D" with southbound peak hourly traffic levels of 785 vehicles (PM) and northbound peak hourly traffic levels of 722 vehicles (AM). At full projected build out of the Miller Creek area, the LOS of the intersection is projected to worsen to level "F". With the proposed improvements to the intersection, the level of service improves to "B" (AM) and "B"/"C" (PM) at full build out. In addition to the vehicular traffic improvements, the proposed plans include new bicycle lanes and pedestrian facilities.

The proposed amendment to the Twite opencut mining permit would not increase the traffic level to the streets. Past operations resulted in an average of seven trucks transporting gravel per day and this rate would not change. Although the amount of total material to be removed is increased, the rate of truck traffic would not increase, because the permit amendment would allow

	the removal of the gravel to continue for a proportionally
	equivalent longer period of time. Some of the gravel from the mine is projected to be used in the construction of the street and non-motorized improvements.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	The acreage listed in the Type and Purpose of Action would be taken out of agricultural use and put into industrial/commercial use. Upon completion of mining, the land would be reclaimed to a housing subdivision with greenspace.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	Existing employees would mainly be utilized for this operation. There is low potential that this project would create a significant number of new jobs.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	Additional taxes may be generated for the county and state in the form of income to the applicant and fuel and highway taxes paid by hauling equipment.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	The operation would require periodic site evaluations by DEQ staff until such time as the site is successfully reclaimed to the required post-mining use. However, these evaluations are usually performed in conjunction with other area operations.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	Based on the Zoning Compliance Form approved by the Missoula County Office of Planning and Grants, the site is zoned as Miller Creek View Planned Unit Development and the proposed operation complies with county zoning regulations (See attached Map 2).
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	No wilderness or recreational areas are nearby or accessed through this tract.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	The project would not likely affect population numbers in the Missoula area, but it would add housing for an increasing local population.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	This amendment would not affect social structures or mores. The area has generally undergone increasing commercial and homesite development in the recent past. Traditional land use has been ranching and agricultural, but the area is also underlain by a high quality deposit of sand and gravel.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	This area is gradually shifting from agricultural to commercial and residential.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	None.

Alternatives Considered:

- A. <u>Denial</u>: The pit would not be permitted and the owner of the gravel resource would be denied full utilization of his property at this time. However, another application could be submitted to revise the existing plan, or an application could be submitted for another site.
- B. <u>Approval of the application</u>: The Plan of Operation has been written with mitigating conditions including water protection, soil salvage and full reclamation.

- **C.** <u>Agency-Modified Alternative</u>: Twite would be required to incorporate the following mitigations into the plan of operation:
 - All soil piles that will remain undisturbed for a period of one year will be planted with the approved grass seed to control wind erosion and dust.
 - The hours of operation for this site will be limited to 7:00 AM to 7:00 PM, Monday through Friday.

Public Involvement, Agencies, Groups, or Individuals contacted:

Missoula County Planning and Grants for zoning, Missoula County Commissioners. The DRAFT Environmental Assessment was distributed to the public via notice in the Missoulian newspaper for comments. The comment period ended on Friday, February 22, 2008. DEQ received comments from three individuals, the Missoula County Commissioners and Montana Fish, Wildlife & Parks. Those comments have been included with responses in the appropriate sections above.

Other Governmental Agencies with Jurisdiction, List of Permits Needed:

A surface water discharge permit may be needed from DEO's Water Protection Bureau.

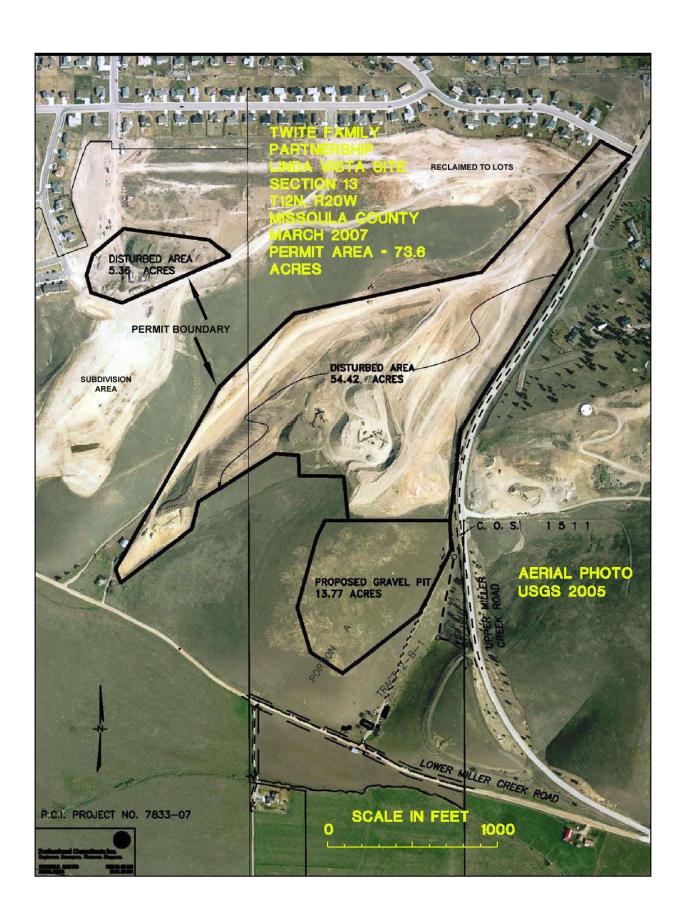
Magnitude and Significance of Potential Impacts:

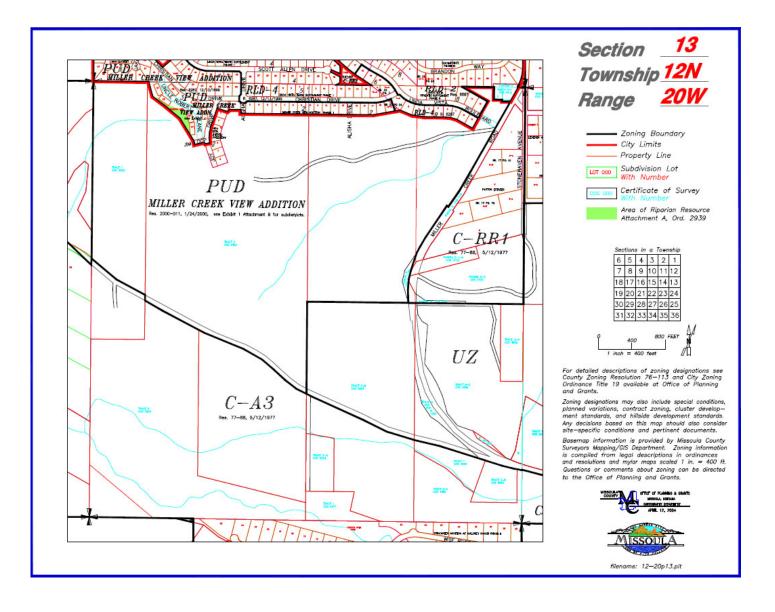
Impacts are unlikely to be significant on the general environment because of the scope and location of the project, the lack of significant or threatened wildlife or habitat, and because of the mitigation measures placed in the Plan of Operation and proposed to be attached to the permit as conditions of approval.

Regulatory Impact on Private Property:

The analysis conducted in response to the Private Property Assessment Act (PPAA) indicates no impact is expected on the use of private property. The Department does not plan to deny the application or impose conditions that would restrict the use of private property so as to constitute a taking. See Attachment 1 for PPAA checklist assessment.

RECOMMENDATION FOR F	FURTHER ENVIRONMENTAL ANALYSIS	• •
☐ EIS	☐ MORE DETAILED EA	NO FURTHER
ANALYSIS		
EA Prepared By:	Rod Samdahl, Environmental Spec	ialist
Review and Contributions by:	Neil Harrington, Chief, Industrial a	nd Energy Minerals
Bureau		





ATTACHMENT 1

PROPERTY DESCRIPTION: Section 13, T12N, R20W; Missoula County

COMPANY NAME: Twite Family Partnership, Linda Vista Site

DATE: March 28, 2008 PREPARED BY: Neil Harrington

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PRIVATE ASSESSMENT ACT?

ES	О		
		1. Does the action pertain to land or water management or environmental	
		regulation affecting private real property or water rights?	
		2. Does the action result in either a permanent or indefinite physical occupation of	
	private property?		
		3. Does the action deprive the owner of all economically viable uses of the property?	
		4. Does the action deny a fundamental attribute of ownership?	
		5. Does the action require a property owner to dedicate a portion of property or to	
		grant an easement? (If answer is NO, skip questions 5a and 5b and continue with question	
		6.)	
		5a. Is there a reasonable, specific connection between the government	
		requirement and legitimate state interests?	
		5b. Is the government requirement roughly proportional to the impact of the	
		proposed use of the property?	
		6. Does the action have a severe impact on the value of the property?	
		7. Does the action damage the property by causing some physical disturbance	
		with respect to the property in excess of that sustained by the public generally? (If the	
		answer is NO, skip questions 7a-7c)	
		7a. Is the impact of government action direct, peculiar, and significant?	
		7b. Has the government action resulted in the property becoming practically	
		inaccessible, waterlogged, or flooded?	
		7c. Has the government action diminished property values by more than 30% and	
		necessitated the physical taking of adjacent property or property across a public way from	
		the property in question?	

Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.